

Success Story

Running Pressure Diagnostics on Farming Combines

The Problem

An agriculture equipment and repair maintenance company was looking for a better diagnostics solution when making repairs to its customer's fleet of combines. The company works on about 150 combines annually and needed the monitoring solution to be accurate and reliable.

To get the most accurate reading possible, a combine must be in motion when running diagnostics. The company had been using wired monitoring devices, which while accurate, can be difficult to use with mobile equipment. Cords that connect the sensors to the monitoring device:

- Can get caught or tangled in moving parts
- Prevent the operator from closing the cab door, which allows debris to enter the vehicle while moving
- Limit where the sensors can be placed

SensoNODE™ Blue is Parker's series of Bluetooth-powered sensors. Compact, energy-efficient, and wireless, they are designed to provide simple and useful solutions for diagnostic and condition monitoring applications. SensoNODE Blue Sensors monitor assets to help predict problems and prevent downtime, and delivers the information to your mobile device.

Voice of the Machine™ Mobile App gives access to machine and process measurements right on your mobile device. The user-friendly interface makes connecting to sensors uncomplicated and measurements easy-to-read. With customizable dashboards and alarms, you can focus on the data that's most important to you and be alerted when your measurement thresholds are exceeded. Exporting of data is done with a click of one button, which sends a .csv file right to your email.

The Solution

Installing two SensoNODE™ Blue Pressure Sensors at critical points on the hydraulic lines allowed technicians to monitor the combine's hydraulic pressure levels while the combine was still running. Pairing it with the Voice of the Machine™ Mobile App lets them use their mobile phones to monitor the levels while riding in the cab with the doors closed so no debris could enter the cab.



Success Factors

Real-time diagnostic data without excessive wiring around the vehicle

Small sensors with flexible antennae allow technicians to fit them in hard-to-reach areas on the combine

Sensors are easy to attach and remove, eliminating the need to carry extra tools

The Voice of the Machine Mobile App alarms warn of dramatic pressure drops or spikes with alerts appearing on a user's mobile device

Customer Value

Maintenance technicians can run diagnostics on multiple combines at once while minimizing man-hours and additional equipment cost. Running diagnostics while the combines are in motion also minimizes costly downtime. In addition, the small, easily attached sensors can be placed closer to areas of interest for more accurate readings.



Parker Hannifin Corporation | **Quick Coupling Division**
8145 Lewis Road, Minneapolis, MN 55427

parker.com/conditionmonitoring